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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,059	12/12/2006	Mitsutaka Okita	289686US2PCT	1033
22850	7590	10/11/2007	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, ERIC K	
			ART UNIT	PAPER NUMBER
			2883	
			NOTIFICATION DATE	DELIVERY MODE
			10/11/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
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## Office Action Summary

**Application No.**

10/577,059

**Applicant(s)**

OKITA ET AL.

**Examiner**

Eric Wong

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 4/24/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 0406, 0706.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 7 are objected to because of the following informalities: It appears there is a typographical error in the word "followings", which should read "following". Appropriate correction is required.
2. Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 2-5. See MPEP § 608.01(n). Accordingly, the claim limitations of claim 6 have not been further treated on the merits.
3. Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 2-8. See MPEP § 608.01(n). Accordingly, the claim limitations of claim 6 have not been further treated on the merits.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Number 6,661,484 to Iwai et al (hereinafter Iwai).

Iwai discloses a liquid crystal display (LCD) comprising:

- An array substrate (1) having pixel electrodes (2) for each color of red, green and blue arranged in a matrix form;

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- An opposing substrate (10) having opposing electrodes (5) arranged in such a manner as to face the pixel electrodes (2) of the array substrate;
- Liquid crystal layer (7) arranged in a bend alignment interposed between the array substrate and the opposing substrate; and
- A filter (3) comprising a red filter layer (3a), a green filter layer (3b) and a blue filter layer (3c) provided on one side of the substrate, the red filter layer being arranged corresponding to the red pixel electrode, and the blue filter layer being arranged corresponding to the blue pixel electrode, wherein a gap distance between the blue pixel electrode and the opposing electrode ( $d_B$ ) is different from a gap distance between the red pixel electrode and the opposing electrode ( $d_R$ ), and also different from a gap distance between the green pixel electrode and the opposing electrode ( $d_G$ ) and satisfies  $d_B < d_R$ ,  $d_B < d_G$ .

As to claim 2,  $d_B < d_G \leq d_R$ .

As to claim 3, the blue filter thickness ( $T_B$ ) is greater than the thickness of the red ( $T_R$ ) and green ( $T_G$ ) filters.

As to claim 4, the filters are on an array substrate in figure 2.

As to claim 5, the filters are on an opposing substrate in figure 1.

As to claim 6, a wave plate (9) is disclosed with a twisting angle of 45 degrees.

As to claim 7, a polyimide orientation film is formed both substrates (column 8, line 60).

As to claim 9, the reflector portion acts as a backlight.

However, Iwai fails to explicitly disclose the absolute value in thickness differences and brightness values as claimed. It is noted that in the given examples of Iwai, the absolute value in

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thickness difference is substantially similar. It is further noted that Iwai does not specifically limit the thicknesses used.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide for the values as claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. United States Patent Number 6,037,084 (alignment film 112).
- b. United States Patent Number 5,386,306.
- c. United States Patent Number 5,150,235 (retardation plates).
- d. United States Patent Number 5,013,138.
- e. United States Patent Number 6,842,207.
- f. United States Patent Number 7,002,647.
- g. United States Patent Application Publication 2003/0011729.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Wong whose telephone number is 571-272-2363. The examiner can normally be reached on Monday through Friday, 830AM - 430PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

//Eric Wong//

EW



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2300